

Amendments to the Claims

1. (cancelled)
2. (currently amended) An aircraft shock strut, comprising a cylinder; a piston telescopically movable within the cylinder and defining therein a sealed chamber partially filled with a liquid and partially filled with a gas; at least one probe associated with the chamber for sensing a condition of a level of liquid in the chamber through interaction with the liquid in the chamber; and a cable that passes through a wall of the strut for connecting to the probe; and wherein the at least one probe includes a plurality of optical liquid sensing probes spaced apart along a longitudinal axis of the strut.
3. (original) A shock strut as set forth in claim 2, wherein the cable includes at least one optical fiber.
4. (cancelled)
5. (original) A shock strut as set forth in claim 2, further comprising a fitting assembly that seals the cable with respect to the strut.
6. (currently amended) An aircraft shock strut, comprising a cylinder; a piston telescopically movable within the cylinder and defining therein a sealed chamber partially filled with a liquid and partially filled with a gas; at least one probe associated with the chamber for sensing a condition of a level of liquid in the chamber through interaction with the liquid in the chamber; a cable that passes through a wall of the strut for connecting to the probe; and a fitting assembly that seals the cable with respect to the strut; and A shock strut as set forth in claim 5, wherein the fitting assembly includes a plug molded around the cable and a retainer for holding the plug in sealed relationship with a through passage in the strut.

7. (original) A shock strut as set forth in claim 6, wherein the plug has an annular groove for receiving an O-ring seal.

8. (original) A shock strut as set forth in claim 6, wherein the cable includes at least one optical fiber and plug is molded directly to the optical fiber to effect a seal around the optical fiber.

9. (original) A shock strut as set forth in claim 6, wherein the cable includes a plurality of optical fibers that have transversely spaced apart, coextending portions thereof each surrounded in sealed relationship by the plug that has been molded thereto.

10. (original) A shock strut as set forth in claim 2, wherein the probe and cable are assembled together as a unit, and wherein a guide tube is mounted within the chamber, the unit at least partially extending through and being located by the guide tube.

11. (original) A shock strut as set forth in claim 10, wherein the unit is removable as a unitary piece from the strut.

12. (currently amended) An aircraft shock strut, comprising a cylinder; a piston telescopically movable within the cylinder and defining therein a sealed chamber partially filled with a liquid and partially filled with a gas; and at least one probe associated with the chamber for sensing a condition of a level of liquid in the chamber through interaction with the liquid in the chamber; wherein the at least one probe includes a plurality of optical liquid sensing probes spaced apart along a longitudinal axis of the strut; and wherein the plurality of optical liquid sensing probes are connected to an optical fiber cable that extends from within the sealed chamber to outside the cylinder.

13. (cancelled)

14. (currently amended) An aircraft shock strut, comprising a cylinder; a piston telescopically movable within the cylinder and defining therein a sealed chamber partially filled with a liquid and partially filled with a gas; and at least one probe associated with the chamber for sensing a condition of a level of liquid in the chamber through interaction with the liquid in the chamber; wherein the at least one probe includes two optical liquid sensing probes, a first one of which detects a condition of a first liquid level and a second one of which detects a condition of a second liquid level; and wherein the optical liquid sensing probes are connected to an optical fiber cable extending from within the sealed chamber to outside the cylinder.

15. (currently amended) A system comprising an aircraft shock strut, comprising a cylinder, a piston telescopically movable within the cylinder and defining therein a sealed chamber partially filled with a liquid and partially filled with a gas, and at least one probe a plurality of optical liquid sensing probes associated with the chamber for sensing a condition of a level of liquid in the chamber through interaction with the liquid in the chamber; and a processor in communication with the probe for processing a signal from the probe related to the level of liquid in the chamber, the processor being connected to the optical liquid sensing probes via an optical fiber cable extending from within the sealed chamber to outside the cylinder.

16. (currently amended) A system as set forth in claim 15, wherein probe is a level sensing optical probe, and further comprising a sensor unit external to the chamber and connected by an optical cable to the probe within the chamber, the sensor unit functioning to transmit light to the probe and receive reflected light from the probe via the optical cable, and wherein the sensing unit is connected to the processor.

17. (currently amended) An aircraft shock strut A system as set forth in claim 15 14, wherein probe is a level sensing optical probe, and further comprising in

combination with a sensor unit external to the chamber and connected by an the optical cable to the probe within the chamber, the sensor unit functioning to transmit light to the probe and receive reflected light from the probe via the optical cable.

18. (cancelled)
19. (cancelled)
20. (cancelled)
21. (currently amended) A shock absorber comprising a cylinder; a piston telescopically movable within the cylinder and defining therein a sealed chamber partially filled with a liquid and partially filled with a gas; and at least one probe associated with the chamber for sensing a condition of a level of liquid in the chamber through interaction with the liquid in the chamber; wherein the at least one probe includes at least one a plurality of fiber optic probes; and wherein the fiber optic probes are connected to an optical fiber cable extending from within the sealed chamber to outside the cylinder.
22. (currently amended) A shock absorber as set forth in claim 21, wherein the distal end of at least one of the probes includes a retro-reflective prism.